ENVIRONMENTAL CHEMISTS

Date of Report: July 1, 1997 Date Received: June 26, 1997

Project: Metro Self Monitor, PO #M57658 Date Samples Extracted: June 26, 1997 Date Extracts Analyzed: June 27, 1997

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR CHROMIUM, COPPER, NICKEL, AND ZINC USING METHOD 6010

Samples Processed Using Method 3005A

Results Reported as mg/L (ppm)

Sample ID		Chromium	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M57658		0.27	0.34	0.25	< 0.05
Method Blan	k	< 0.05	< 0.05	< 0.05	< 0.05

ENVIRONMENTAL CHEMISTS

Date of Report: July 1, 1997 Date Received: June 26, 1997

Project: Metro Self Monitor, PO #M57658

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 79023 (Duplicate)

Report Analyte: Unit	•	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Allatyte. Omt	s Result Ambien Wildelm Wildel	<u>rtesuit</u>	Difference	Officeria
Chromium mg/L (p	pm) 0.24	0.26	8	0-20
Copper mg/L (p	pm) 0.30	0.30	0	0-20
Nickel mg/L (p	pm) 0.23	0.23	0 a	0-20
Zinc mg/L (p	pm) <0.05	< 0.05	nm	0-20

Laboratory Code: 79023 (Matrix Spike)

	Reporting	Spike	Sample	% I	Recovery	Acceptance	Relative Percent
Analyte:	Units	Level	Result	MS	MSD	Criteria	<u>Difference</u>
Chromiur	n mg/L (ppm)	2.5	0.24	89	88	80-120	1
Copper	mg/L (ppm)	2.5	0.30	94	93	80-120	1
Nickel	mg/L (ppm)	5	0.23	89	88	80-120	1
Zinc	mg/L (ppm)	2.5	< 0.05	87	86	80-120	- 1

Laboratory Code: Spike Blank

Analyte:	Reporting Spike Units Level		%] MS	Recovery MSD	Acceptance Criteria	Relative Percent Difference
		30,10,				
Chromium	mg/L (ppm)	2.5	90	94	80-120	4
Copper	mg/L (ppm)	2.5	99	101	80-120	2
Nickel	mg/L (ppm)	5	92	93	80-120	1
Zinc	mg/L (ppm)	2.5	88	90	80-120	2

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

FRIEDMAN & BRUYA, INC. 3012 form Avenue West Seat. 1., WA 96119-2029 (206) 285-8282

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SAMPLE CHAIN OF CUSTODY

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ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Beth Albertson, M.S. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. Melanie Kirol, B.S. July 1, 1997 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

INVOICE # 97ACU0701-1 DUPLICATE COPY

Accounts Payable Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

RE: Project Metro Self Monitor, PO #M57658: Results of testing requested by Gerald Thompson, Project Manager for material submitted on June 26, 1997.

FEDERAL TAX ID #(b) (6)

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Beth Albertson, M.S. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. Melanie Kirol, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

July 1, 1997

Gerald Thompson, Project Manager Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on June 26, 1997 from your Metro Self Monitor, PO #M57658 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson Chemist

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Enclosures ACU0701R.DOC